

IN THE CLAIMS:

1 (reinstated – formerly dependent claim 10) A method according to claim 10, wherein the radiation absorbing material is a radiation absorbing dye.

2 (currently amended). A method according to claim 10, wherein the radiation absorbing ~~dye~~ material is sandwiched between two workpieces.

3 (currently amended). A method according to claim 10, wherein the radiation absorbing ~~dye~~ material is provided in at least one of the workpieces.

4 (currently amended). A method according to claim 10, wherein the radiation absorbing ~~dye~~ material is provided on a substrate by molding the substrate in a mould with an insert formed by or including the radiation absorbing ~~dye~~ material.

5 (currently amended). A method according to claim 10, wherein the radiation absorbing ~~dye~~ material is provided as a coating on a substrate.

6 (currently amended). A method according to claim 10, wherein the radiation absorbing ~~dye~~ material is provided by coextruding the material with a substrate.

7 (currently amended). A method according to claim 10, wherein the radiation absorbing ~~dye~~ material is exposed to radiation prior to positioning the workpieces together.

8 (currently amended). A method according to claim 10, wherein the radiation absorbing ~~dye~~ material is exposed to radiation through one of the workpieces.

9 (cancelled).

10 (currently amended). A method of forming a weld between plastics workpieces over a joint region, the method comprising:  
    exposing the joint region to incident radiation having a wavelength outside the visible range so as to cause melting of the surface of one or both workpieces at the joint region, and allowing the melted material to cool thereby welding the workpieces together, the method further comprising providing a radiation absorbing ~~dye~~ material at the joint region in one of the workpieces or between the workpieces which has an absorption band in the range 780 nm – 1500 nm matched to the wavelength of the incident radiation so as to absorb the incident radiation and generate heat for the melting process, wherein the radiation absorbing ~~dye~~ material is visually transmissive after welding so that the material does not substantially affect the appearance of the joint or the workpieces in visible light.

11 (cancelled).

12 (original). A method according to claim 11, wherein the absorption band defines the range 780-1100nm.

13 (previously presented). A method according to claim 10, wherein the absorption band defines the range 820-860nm.

14 (previously presented). A method according to claim 10, wherein the absorption band lies in the infrared range.

15 (previously presented). A method according to claim 10, wherein the absorption band does not include the range 400-700nm.

16 (previously presented). A method according to claim 10, wherein the radiation is in the infrared range.

17 (previously presented). A method according to claim 10, wherein the wavelength of the incident radiation lies in the range 700-2500nm.

18 (original). A method according to claim 17, wherein the wavelength of the incident radiation lies in the range 790-860nm.

19 (original). A method according to claim 17, wherein the wavelength of the incident radiation lies in the range 940-980nm.

20 (previously presented). A method according to claim 10, wherein the radiation is a laser beam.

21 (previously presented). A pair of workpieces which have been welded by a method according to claim 10.

22 (reinstated – former dependent claim 22). A method according to claim 10, wherein the workpieces comprise fabrics.

23 (reinstated – former dependent claim 23). A method according to claim 22, wherein the fabrics are nylon-based fabrics.

24 (reinstated – former dependent claim 24). A method according to claim 22, wherein the fabrics are polyurethane coated.

25 (reinstated – former dependent claim 25). A method according to claim 22, wherein the fabrics comprise polyamide/polytetrafluoroethylene laminated fabrics.

26 (previously presented). A method according to claim 10, wherein the workpieces comprise thin films.

27 (currently amended). A method according to claim 9 10, wherein the workpieces are made of thermoplastic.

28 (reinstated – former dependent claim 28). The method according to claim 27, wherein the thermoplastic workpieces are textiles.

29 (currently amended). A method according to claim 9 10, wherein the workpieces are thermoplastic films.

30 (previously presented). A method according to claim 26, wherein said thin films comprise polyester or fluoropolymer.

31–61 (cancelled).